

RESULTS FOR RUNTIME:

ARRAYS	Insert	Append	Get Sized Array
tinyArray	26.5 μ s	63.291 μ s	10
smallArray	21.625 μ s	85.333 μ s	100
mediumArray	139.875 μ s	87.583 μ s	1000
largeArray	5.900584 ms	346.5 μ s	10000
extraLargeArray	699.901667 ms	4.547291 ms	100000

The pattern I see is when the size of the array gets bigger, the time it takes to loop through the array gets bigger also. With the “insert” function, as each array grows the time it takes to loop through the array grows rapidly. Unlike the “append” function as each array grows the time it takes to loop through the array grows gradually. The “append” function scales better and would be the better function to use.

The “insert” function is much slower because it uses the .unshift method. The “append” method uses the .push method which adds to the end of the array instead of moving each index of the array like the .unshift method.